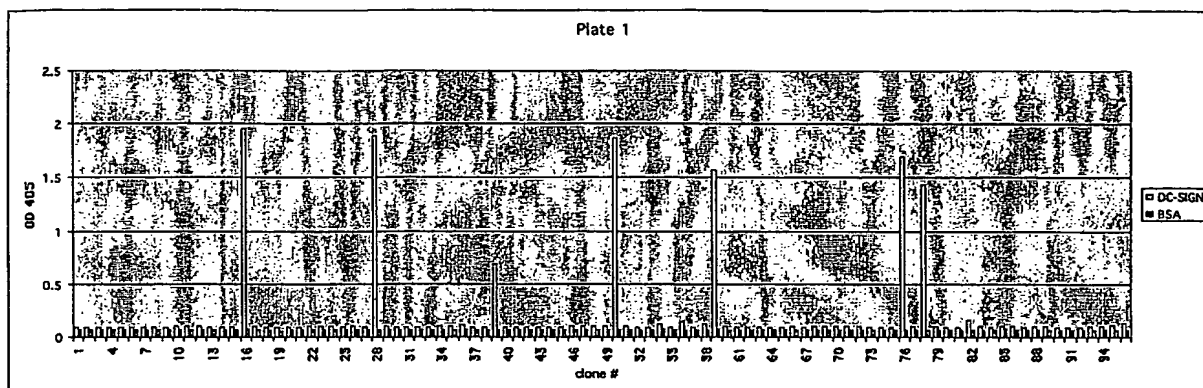


# Figure 1A

IgG1 library



# Figure 1B

IgG2a library

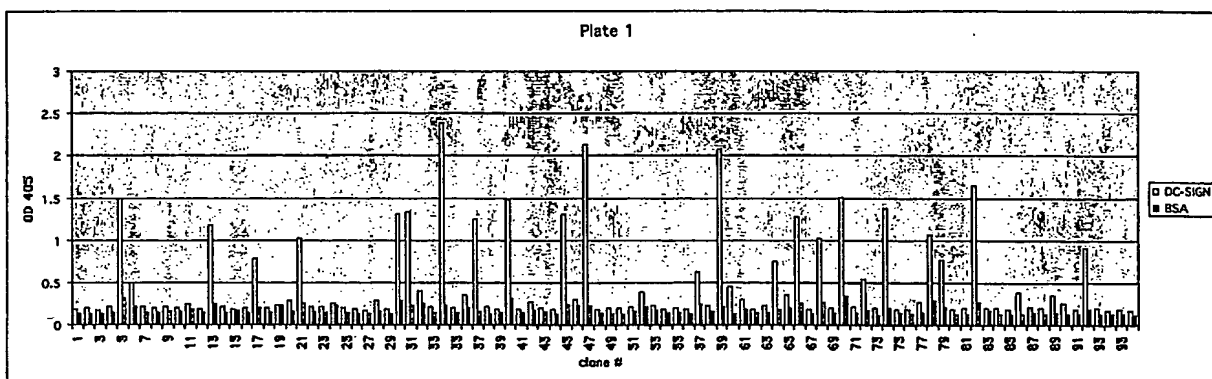


Figure 2

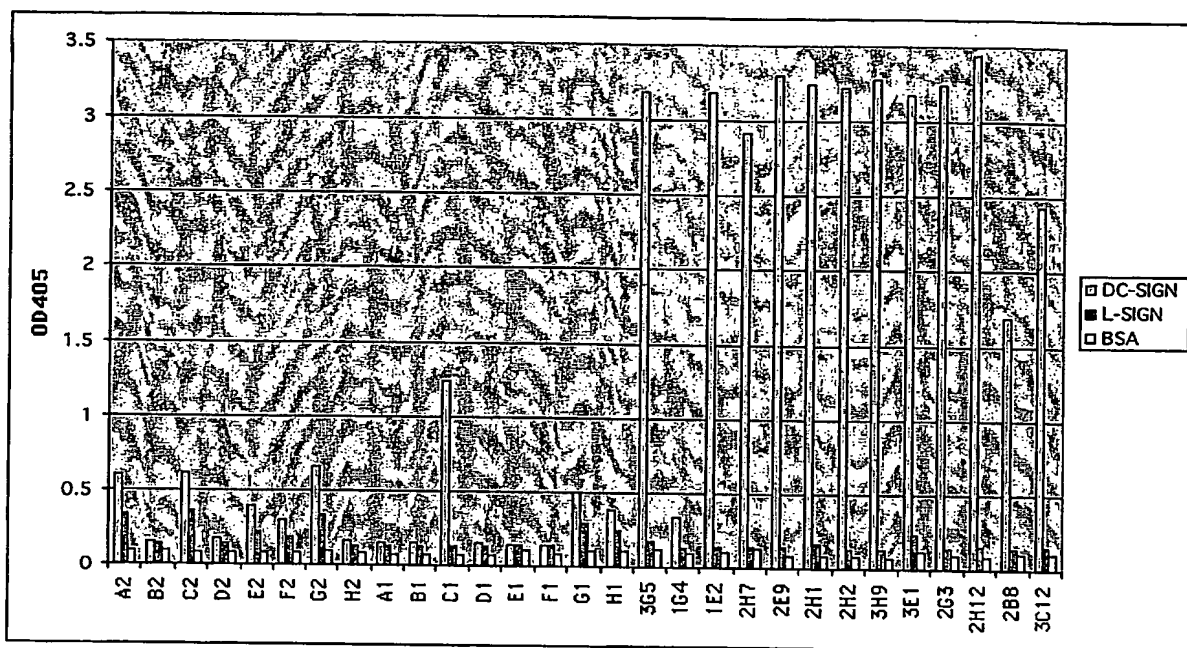
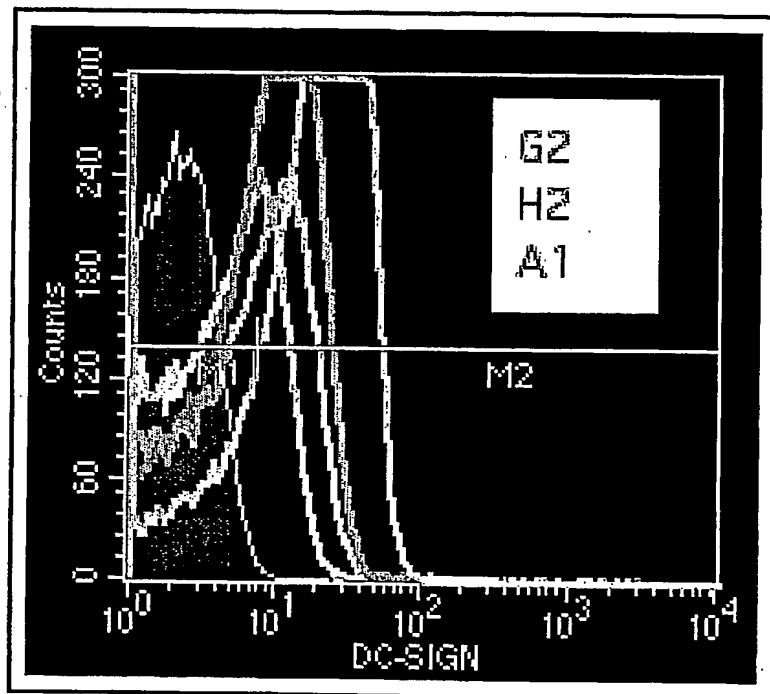


Figure 3



A1= clone 1  
H2=clone 15  
G2=clone 16

### Figure 4a

Light chain sequences

D I Q M T Q T T S S L S A S L G D R V T I T C R A S Q D I N N Y L N W Y Q Q K P																																									
Majority																																									
10										20										30										40											
1	D	I	Q	M	T	Q	S	P	A	S	L	S	A	S	V	G	E	T	I	T	C	R	A	S	E	N	I	H	N	Y	L	A	W	Y	Q	Q	N	Q	1G4LC		
1	D	I	Q	M	T	Q	T	T	S	S	L	S	A	S	L	G	D	R	V	T	I	T	C	R	T	S	Q	D	I	D	N	Y	L	N	W	Y	Q	Q	K	P	2B8LC
1	D	I	P	M	T	Q	T	T	S	S	Q	S	A	S	L	G	D	R	V	T	I	T	C	R	A	S	Q	D	I	N	N	Y	L	N	W	Y	Q	Q	K	P	2H1LC
1	D	I	Q	M	T	Q	T	T	S	S	L	S	A	S	L	G	D	R	V	T	I	S	C	R	A	S	H	D	I	N	D	Y	L	N	W	Y	Q	Q	K	P	2H2LC
1	D	I	Q	M	T	Q	T	T	S	S	L	S	A	S	L	G	D	R	V	T	I	T	C	R	A	S	Q	D	I	S	N	Y	L	N	W	Y	Q	Q	K	P	3C12LC
1	D	I	Q	M	T	Q	T	T	S	S	Q	S	A	S	L	G	D	R	V	T	I	T	C	R	A	S	Q	D	I	N	N	Y	L	N	W	Y	Q	Q	K	P	3E1LC
1	D	I	Q	M	T	Q	T	T	S	S	L	F	A	S	L	G	D	R	V	T	I	S	C	R	A	S	Q	D	I	R	N	N	L	N	W	Y	Q	Q	K	P	3E7LC
1	D	I	Q	M	T	Q	T	T	S	S	L	S	A	S	L	G	D	R	V	T	I	S	C	R	A	S	H	D	I	N	D	Y	L	N	W	Y	Q	Q	K	P	3H9LC
D G T V K L L I Y Y T S R L H S G V P S R F S G S G S G T D Y S L T I S N L A Q																																									
Majority																																									
50										60										70										80											
41	G	K	S	P	Q	L	L	V	Y	N	A	K	T	L	A	V	G	V	P	S	R	F	S	G	S	G	S	G	T	Q	F	S	L	K	I	V	S	L	Q	P	1G4LC
41	D	G	T	V	K	L	L	I	Y	Y	T	S	R	L	H	S	G	V	P	S	R	F	S	G	S	G	S	G	T	D	Y	S	L	T	I	N	N	L	A	Q	2B8LC
41	D	G	T	V	K	L	L	I	Y	Y	T	S	R	L	H	S	G	V	P	S	R	F	S	G	S	G	S	G	T	D	Y	S	L	T	I	S	N	L	E	Q	2H1LC
41	D	G	T	V	K	L	L	I	Y	Y	T	S	S	L	Q	S	G	V	P	S	R	F	R	G	Y	G	S	G	T	D	Y	S	L	T	I	S	N	L	A	Q	2H2LC
41	D	G	T	V	K	L	L	I	Y	Y	T	S	R	L	H	S	G	V	P	S	R	F	S	G	S	G	S	G	T	D	Y	S	L	T	I	S	N	L	A	Q	3C12LC
41	D	G	T	V	K	L	L	I	Y	Y	T	S	R	L	H	S	G	V	P	S	R	F	S	G	S	G	S	G	T	D	Y	S	L	T	I	S	N	L	E	Q	3E1LC
41	D	G	T	V	K	L	L	I	Y	Y	T	S	S	L	P	S	G	V	P	S	R	F	S	G	S	R	S	G	T	D	Y	S	L	T	I	S	N	L	E	Q	3E7LC
41	D	G	T	V	K	L	L	I	Y	Y	T	S	S	L	Q	S	G	V	P	S	R	F	R	G	Y	G	S	G	T	D	Y	S	L	T	I	S	N	L	A	Q	3H9LC
E D I A T Y F C Q Q G D T L P W T F G G G T K L E I K R A (SEQ ID NO: 9)																																									
Majority																																									
90										100																															
81	E	D	F	G	N	Y</																																			

# Figure 4 b

Heavy chain sequences

```

EVQLQQSGPELVKPGASVKISCKASGYST - GYYMHWVKQ Majority
-----+-----+-----+-----+
              10              20              30              40
-----+-----+-----+-----+
EVQLQQSGPGLVKPSPQSLSLACSVTGYSITSGYYWNWIRQ 1G4HC
EVQLQQSGPELVKPGASVKISCKASGYST - GYYMHWVKQ 1H2HC
EVQLQQSGPELVKPGASVKISCKASGYST - GYYMHWVKQ 2B8HC
EVQLQQSGPELVKPGTSTSVKISCKASGYST - GYYIHWVRQ 2H1HC
EVQLQQSGPELVKPGTSTSVKISCKASGYST - GYYIHWVRQ 2H2HC
EVQLQQSGPELVKPGASVKISCKASGYST - GYYMHWVKQ 3C12HC
EVQLQQSGPELVKPGASVKISCKASGYST - GYYMHWVKQ 3E1HC
EVQLQQSGAELVLRPGALVKLSCKASGFNIK - DYYIHWVKQ 3E7HC

SHVKSLEWIGRINPYNGATSYNQNFKDKASLTVDKSSTTV Majority
-----+-----+-----+-----+
              50              60              70              80
-----+-----+-----+-----+
SPGNKLEWMGYISYD - GNSDYNPSFKNRISITRDTSKNQF 1G4HC
SHVKSLEWIGRINPYNGATSYNQNFKDKASLTVDKSSTTV 1H2HC
SHVKSLEWIGRINPYNGATSYNHNFKDKATLTVHKSSSTTV 2B8HC
RHVKSLEWIGRINPYSGATSYNQSFKDKASLTVDKSSTTA 2H1HC
RHVKSLEWIGRINPYSGATSYNQSFKDKASLTVDKSSTTA 2H2HC
SHVKSLEWIGRINPYNGATSYNQNFKDKASLTVDKSSTTV 3C12HC
SHVKSLEWIGRINPYNGAPSYNQNFKDKASLTVDESSTTV 3E1HC
RPEQGLEWIGWIDPENGNTIYDPKFQ GKASITADTSSNTA 3E7HC

YMEVHSLTSEDSAVYYCVRSDNGYYSYPMDYWGQGTSVTV Majority
-----+-----+-----+-----+
              90              100              110              120
-----+-----+-----+-----+
FLRLNSLTTEDTATYYCVRDDSGR - - FPQWQGQGLVTVSA 1G4HC (SEQ
ID NO: 18)
YMEVHSLTSEDSAVYYCVRSDNGYYSYPMDYWGQGS SVA V 1H2HC
YMEVHSLTSEDSAVYYCVRSDNGYYSYPMDYWGQGTSVTV 2B8HC
YMEVHSLTSEDSAVYYCVRSDNGYYSYPMDYWGQGTSVTV 2H1HC
YMEVHSLTSEDSAVYYCVRSDNGYYSYPMDYWGQGTSVTV 2H2HC
YMEVHSLTSEDSAVYYCVRSDNGYYSYPMDYWGQGTSVTV 3C12HC
YMEVHSLTSEDSAVYYCVRSDNGYYSYPMDYWGQGTSVTV 3E1HC
YLQLSSSLTSEDTAVYYCARYYLG - - - - VDYWGQGSVTV 3E7HC

S S (SEQ ID NO: 19) Majority
-----

S S (SEQ ID NO: 20) 1H2HC
S S (SEQ ID NO: 21) 2B8HC
S S (SEQ ID NO: 22) 2H1HC
S S (SEQ ID NO: 23) 2H2HC
S S (SEQ ID NO: 24) 3C12HC
S S (SEQ ID NO: 25) 3E1HC
S S (SEQ ID NO: 26) 3E7HC

```

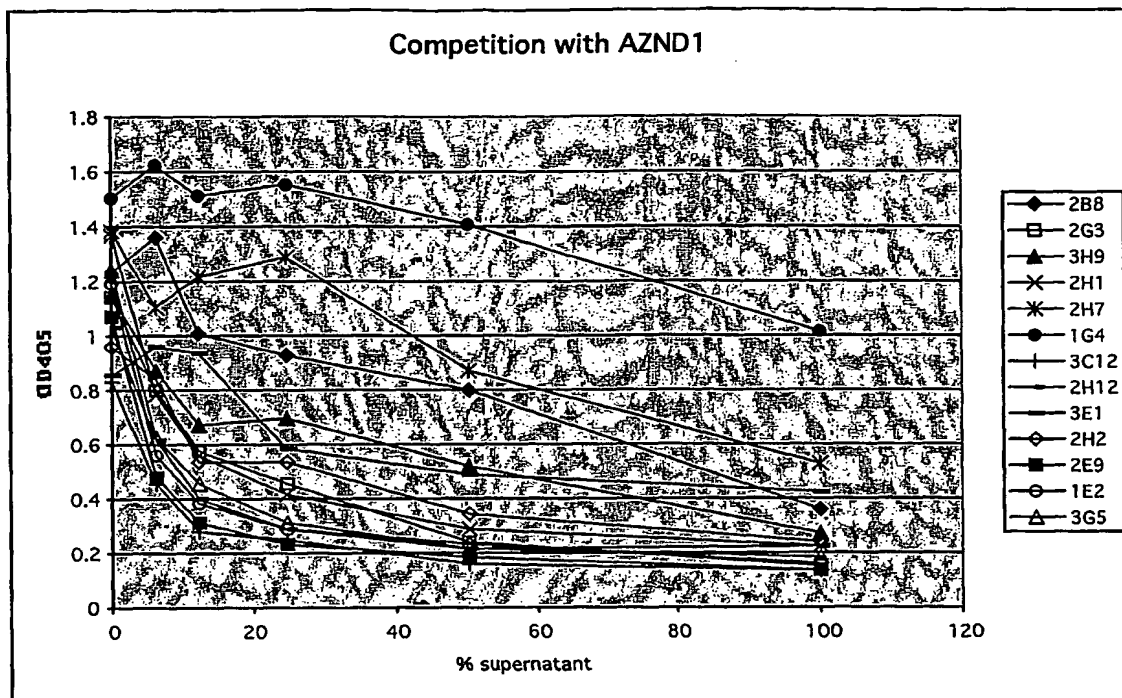
IgG2a library  
Heavy Chains

Heavy Chains	CDR1	CDR2	CDR3
1	EVYLOQSGDLVKPGASVRISCKTSGETFA	NYIIH WVKRPPQGLEWIG WIFPGNFKTEYNEKFKG	KATLTADKSSSTAYMQLSSLTSEDSAVYFCARG YGVAVDY WGGGTSVTVSSAKTT 1
(SEQ ID NO: 27)			
2	EVYLOQSGAEIVKPGASVKLSCTASGENIK	DTYMH WVKRPPQGLEWIG RIDPANGNTKYDKPKFQG	KATITADTSSNTAYIQLSSLTSEDTAIVYICARD YYGIIVDY WGGGTLITVSSAK 2
(SEQ ID NO: 28)			
3	EVYLOQSGAEIARPGASVKLSCKASGYTF	SYMMQ WVKRPPQGLEWIG AIYPGCGDTRYTKQFKG	KATLTADKSSSTAYMQLSSLASEDSAVYFCARG GLKSFYAMDHWGGGTSVTVSSAK 3
(SEQ ID NO: 29)			
4	EVYLOQSGDPLVKPGASVRISCKTSGETFA	SYZIH WVKRPPQGLEWIG WIFPGNFKTEYNEKFKG	KATLTADRSSSTAYMQLSSLTSEDSAVYFCARG YGVAVDY WGGGTSVTVSSAKT 4
(SEQ ID NO: 30)			
5	EVYLOQSGDPLVKPGASVRISCKASGETFA	SYZIH WVKRPPQGLEWIG WIFPGNNNTKSNKFKG	KATLTADKSSSTAYMQLSSLTSEDSAVYFCARG YGVAVDY WGGGTSVTVS 5
(SEQ ID NO: 31)			
6	EVYLOQSGDPLVKPGASVRISCKASGETFA	SYZIH WVKRPPQGLEWIG WIFPGNNNTKSNKFKG	KATLTADKSSSTAYMQLSSLTSEDSAVYFCARG YGVAVDY WGGGTSVTVSSAKT 7
(SEQ ID NO: 32)			
7	EVYLOQSGAEIVKPGASVKLSCTASDENIK	DTYIQ WVKRPPQGLEWVG RIDPANGEIKYDKPKFQG	KATITADTSSNTAYIQLSSLTSEDTAIVYICTAY FLVY WGGGTLITVSSAKTT 8
(SEQ ID NO: 33)			
8	EVYLOKESGELVAPSGLSITCTVSGFSL	RYTVH WIRPPCKGLEWLG MTWGGGTDDYNSALKS	RLSISKDNSESQVFLKMDSLQDTHAKYICARI NFGILGY WGGGTLITVSSAKTT
(SEQ ID NO: 34)			
9	EVYLOQSGTELVKPGALVKLSCKASGENIK	DYFMH WVKRPPQGLEWIG WIDPKNGNTIYDKFQV	KASITADTSSNTAYIQLSSLTSEDTAIVYICTTT YPNALDY WGGGTSVTVSSAKTT
(SEQ ID NO: 35)			
Light chains			
1	DIAMTQSHKFMSTPVGDRVSI TC KASQDVSTA	VA WYQKPKQSPKLLIY SASVRYT	GVDPDRFTGSGSGTDFTTITSSVQAEADLAVYVC QOHYITPLT FGAGTKLEIKR 1 (SEQ ID NO: 36)
2	DVVMTCPTPLTSLVITIQPASISC	KSSQSLDSDGKTYIN WLLWRPQSPKRLIY	LVSKLDS GVDPDRFTGSGSGTDFTLKISRVEAEDLGVYFC WQDTHPPHV HVRCWDAQGT 2 (SEQ ID NO: 37)
3	SVLIVLPQSPKSMMSGVGVTVLSC	KASENVGTY VS WYQKPKQSPKLLIY	GSSNRST GVDPDRFTGSGSATDFTLTITSSVQAEADLADYHC GOSYNYPT FEGGTKLEIKR 3 (SEQ ID NO: 38)
4	DIVLWQSHKFMSTPVGDRVSI TC KASQDVSTA	VA WYQKPKQSPKLLIY	WASTRHT GVDPDRFTGSGSGTDYTLTITSSVQAEADLALYVC QOYYSTPT FEGGTKLEIKR 4 (SEQ ID NO: 39)
5	RRVMTQTTSSLSASISLGRVTISC	SASQDINWILN WYQKPKDGTVKLLIY	YTSRLHS GVPSRFGSGSGTDYSLTISNLEPEDVATYVC QOYGNLPT FEGGTKLEIKR 5 (SEQ ID NO: 40)
6	DIQCTQTTSSLSASISLGRVTISC	RASQDISNVLN WYQKPKDGTVKLLIY	YTSRLHS GVPSRFGSGSGTDYSLTISNLEQADIATYFC QOGKTLPT FEGGTKLEIKR 7 (SEQ ID NO: 41)
7	RQMTQSHKFMSTPVGDRVSI TC KASQDVSTA	VA WYQKPKQSPKLLIY	WASTRHT GVDPDRFTGSGSGTDYTLTINSVQAEADLALYVC QOHYITPLT FGAGTKLEIKR 8 (SEQ ID NO: 42)
8	RRVPRDAGTTSSLSASISLGRVTISC	RASQDISNVLN WYQKPKDGTVKLLIY	YTSRLHS GVPSRFGSGSGTDYSLTISNLEQEDIATYFC QOGNTLPT FEGGTKLEIKR 11 (SEQ ID NO: 43)
9	DIVQIQSPASLAVSIGRATISC	KASQSDVDGDSYVN WYQKPKQPPKLLIY	AASNLHS GVPSRFGSGSGTDYSLTISNLEQADIATYFC QOGKTLPT FEGGTKLEIKR 15 (SEQ ID NO: 44)

## Light chains

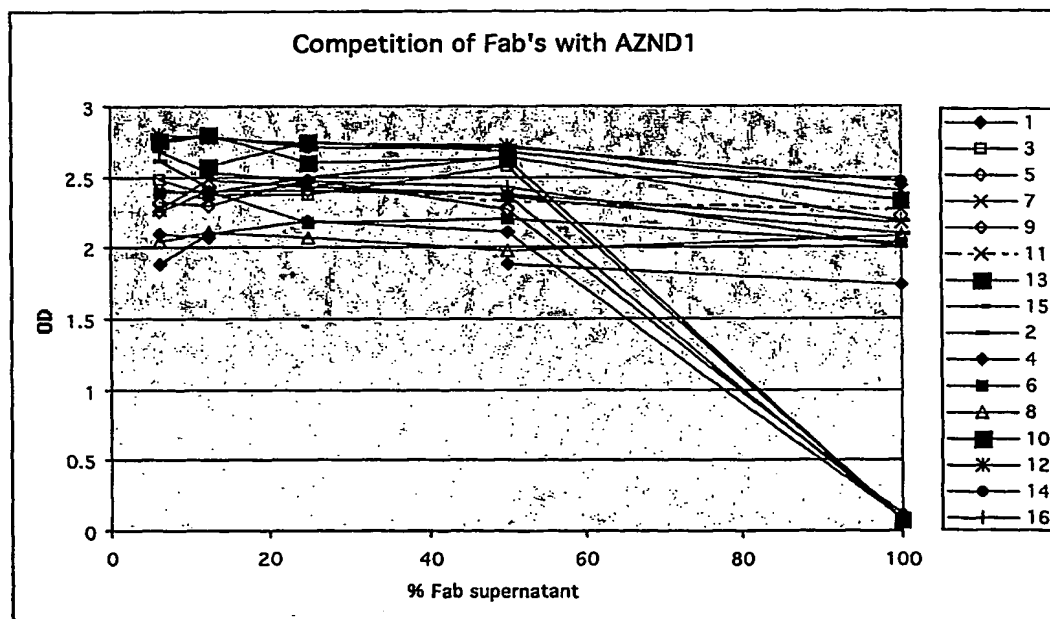
# Figure 5A

IgG1 library



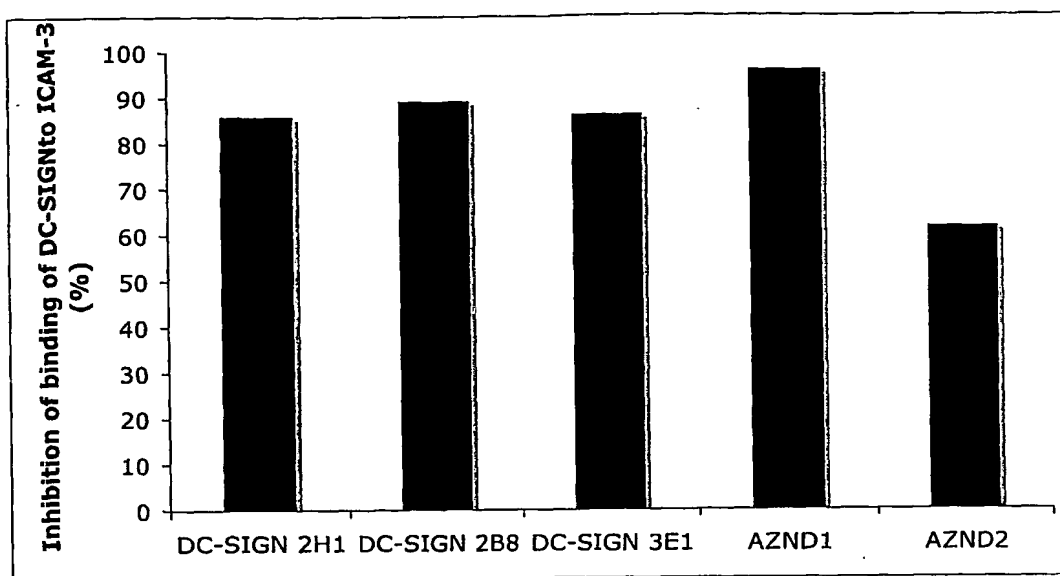
# Figure 5B

IgG2a library



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Figure 6



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